National Aeronautics and Space Administration
Goddard Space Flight Center

Inside Wallops

Wallops Flight Facility, Wallops Island, Virginia | Volume XX-00 | Number: 22 | May 22, 2000

Native American Students Using Mars "Soil" To Grow Spuds In Space

A 21st century, space-age simulated Mars soil and one of the world's oldest food sources — the potato — have been joined in an experiment aboard STS 101 Space Shuttle Atlantis that was launched May 19.

The experiment, designed by Native American science students, will test how well the soil supports plant growth.

Two GetAway Special (GAS) experiments MARS (left) and SEM-06 (right), part of the payload on mission STS-101, are seen here in the payload bay of Space Shuttle Atlantis prior to door closure.

Students from Shoshone-Bannock High School on the Fort Hall Indian Reservation in southeastern Idaho will compare the plants grown in the synthetic dirt on Earth with those that fly in space.

The simulated soil, known as JSC Mars-1, closely resembles the red dirt found on the surface of Mars. The coarse powder — about the color of cinnamon — is similar to what scientists know about the color, density, grain size, porosity, chemical composition, mineralogy and magnetic properties of Martian soil.

The "Spuds in Space," experiment will be the first test of the soil simulant as a medium for growing plants in space. It also marks the second time Native American students have flown an experiment on the Shuttle. The first Native American science experiment — also from Shoshone-Bannock High School — flew on Discovery in 1998.

The potato experiment is one of 10 experiments flying as part of the Space Experiment Module (SEM) program, an educational initiative to increase access to space for students from kindergarten through college.

Since its first flight in 1995, SEM has allowed tens of thousands of students in the United States and other countries to fly their experiments in space. The SEM program is managed by NASA Goddard Space Flight Center's Wallops Flight Facility.

"These simulants are natural materials that approximate, to the best of our current knowledge, the soils of the Moon and Mars," explained Dr. Carlton Allen of Lockheed Martin Space Operations, Houston, TX.

Allen was part of the NASA Johnson Space Center, university and private industry teams that developed the simulated soils, including one based on lunar samples collected by Apollo crews.

Additional information on the SEM program can be found at: www.wff.nasa.gov/~sspp/sem/sem.html

Wallops Island Launch Successful

Photo by Joe Kamps.

A NASA Nike-Orion suborbital sounding rocket was successfully launched at 6:18:39 a.m. Eastern Daylight Saving Time, May 17, from Wallops Island.

The rocket carried the Student Project Involving Rocket Investigation Techniques (SPIRIT) payload from Penn State University.

The purpose of the mission was to investigate a new generation of sensor techniques for in-situ measurements of middle atmospheric temperatures. Data was received from all systems. The payload reached an altitude of 101.1 kilometers (62.78 miles) and was recovered in the Atlantic Ocean approximately 66 kilometers (41 miles) southeast of Wallops.

Dr. John Mitchell from Penn State was the principal investigator.

Space Man Spiff and the Saturators Earn Bragging Rights

The weather was great, the grill was smoking and rockets flew during the first Wallops Partners Picnic held May 19.

There were 12 entries in the bottle rocket competition with bragging rights for the Year 2000 going to:
Best overall — Two Stage Omelet (NASA team "Space Man Spiff and the Saturators" — Chris Shreeves, Dianna Shreeves and Bonnie Maxfield)

Overall Looks and Asthetics and second place winner — SCSC Nest Egg (Navy Resource Management Dept. — Judy Hasenei, Barbara Boyle, Joanne Campbell, Luann Bashure and Julie Bloxom)

The Coast Guard entry took third place honors.

Thanks goes out to everyone who supported this event, especially Super Chef Gerry McIntire.

Chris Shreeves steadies Two Stage Omelet while Keith Koehler (left) and Bonnie Maxfield prepare the launcher.

Wallops Fire Department
Responses May 12 - May 17

Aircraft Stand-bys — 48
Ambulance Calls — 4
Mutual Aid Assistance — 1
Structure Fire in Wattsville on Chincoteague Rd.

Memorial Day will be observed May 29, 2000

Wallops Partners Picnic May 19, 2000

NASA U.S. Navy
U.S. Coast Guard NOAA
Virginia Space Flight Center

Linda Layton, (seated) and Claudia Fulk greeted employees and served as WEMA cashiers.

Barbara Boyle holds on to the SCSC Nestegg entry that won top honors in the Overall Looks and Asthetics category and came in second place overall.

Approximately 300 employees came out for the picnic and to watch the bottle rocket contest.

NASA's Arnold Torres, Navy's Steve Habeger and NOAA's Ed Seman take a turn at serving hot dogs and hamburgers.

Glen Maxfield (standing) prepares to launch DCX Model while Keith Koehler monitors the air pressure.

Thanks to the NASA Federal Credit Union for providing enough cake to serve everyone who attended the picnic.

Keith Koehler (far left) makes sure Giovanni Rosanova, (standing) Amanda Allen and Mike Cropper (seated) understand the rules for judging the bottle rocket contest.

PAO Digital Picnic Photos

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

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Printing Printing Management Office

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